

## **REMARKS**

Claims 1-10, 22-31, 43, 44 and 53-58 were pending in the present application. Claims 7, 9 and 28 are amended herein. Accordingly, claims 1-10, 22-31, 43, 44 and 53-58 are currently pending. No new matter has been added. Applicant respectfully requests reconsideration of the claims in view of the following remarks.

### **Claim Objections**

The Office Action objected to claim 9 because the term  $R_k$  is not defined. Applicant has amended claim 9 as recommended by the Examiner, and therefore respectfully requests withdrawal of the objection.

### **Claim Rejections**

The Office Action rejected claims 1, 4, 22, 25, 53, 54, 57 and 58 under 35 U.S.C. § 103(a) as being unpatentable over Adduci et al., U.S. Patent No. 7,343,334 (“Adduci”) in view of Cossins et al., U.S. Publication No. 2003/0083073 (“Cossins”) and Elliot, U.S. Patent No. 7,158,790 (“Elliot”). The Office Action rejected claims 2, 3, 5-10, 23, 24, 26-31, 43, 44, 55 and 56 under 35 U.S.C. § 103(a) as being unpatentable over Adduci in view of Cossins and Elliot, and further in view of various other references or AAPA. Applicant respectfully traverses these rejections.

Applicant already has pointed out in previous amendments significant limitations of independent claims 1 and 22 not found in the cited prior art, which discussions are incorporated herein. *See, e.g.*, Amendment, pp. 16-17 (Oct. 27, 2010), Amendment Accompanying RCE, pp. 12-16 (April 20, 2010), Supplemental Amendment, pp. 12-14 (May 11, 2010).

In further support of Applicant's positions, Applicant is submitting herewith as evidence the Declaration of Dr. Charles Bernardin filed under 37 C.F.R. § 132, dated March 28 2011 ("Bernardin Declaration"). Dr. Bernardin is an expert in telecommunications, with more than 30 years of combined academic and industrial experience in the wireless communications field. *See* Bernardin Declaration, ¶¶ 1-4.

Dr. Bernardin first highlights a high-level distinction between the approach/solution of Applicant's invention and that of Adduci, and it is this high-level distinction that generally drives and highlights the specific differences between Applicant's claims and Adduci. That is, Adduci provides a macroeconomic approach focusing on return on investment for service deployment at the broader, metropolitan service area/rural service area level, while Applicant provides a microeconomic approach focusing on return on investment for equipment deployment at the much narrower, wireless sector level. *See id.* at ¶¶ 6-8 (referring to Applicant as "Egner").

Dr. Bernardin then discusses in detail three primary differences between Applicant's claims and Adduci, which differences naturally flow from the distinct high-level approaches of Applicant's invention and Adduci. Firstly, a

primary difference between Egner and Adduci is that Adduci is directed to investment for an entire geographic region of a cellular network, while Egner is directed to investment for an individual sector in a cellular network. The term "sector" in a cellular network has a known meaning to those of ordinary skill in the art in the field of wireless telecommunications. A sector in a cellular network is known as the physical area covered by a directional antenna at a base station site (note that there may be other directional antennas covering the same area, such as when there are separate antennas for transmit, receive and control). For example, Egner shows fifteen sectors C101-C115 in Figure 1, and fifteen sectors C201-C215 in Figure 2, with each sector covering a 120° area centered at its respective base station site location. A geographic region as disclosed by Adduci includes many such sectors so as to provide service coverage for the country, city, or metropolitan area (as stated in the first two full sentences of column 6 in Adduci).

*Id.* at ¶ 9. In Dr. Bernardin’s professional judgment, “one of ordinary skill in the art would understand a sector as claimed by Applicant to be physically much smaller than and functionally very different from the geographic region of Adduci.” *Id.* Accordingly, to one of ordinary skill in art, the “per sector” limitation of Applicant’s claims is not merely a statement of intended use. Applicant therefore strenuously asserts that the Examiner cannot ignore this phrase and instead must give it patentable weight.

Secondly, Dr. Bernardin states that another

primary difference between Egner and Adduci is that Adduci is directed to evaluating investment of wireless services for a broad geographic region, while Egner directed to evaluating capital investment in individual sectors. In the wireless telecommunications industry, when a particular service is deployed, it is deployed to all sectors in a geographic region, such as a country, city or metropolitan area. In my professional judgment, one of ordinary skill in the art would never deploy a service, such as UMTS, in one sector of a three-sector site without deploying it in the other two sectors of the site, let alone without deploying it in the rest of the sectors in the geographic region.

*Id.* at ¶ 10. In Dr. Bernardin’s professional judgment, “Adduci does not provide any motivation to one of ordinary skill in the art to perform investment evaluation of either a service or capital equipment on a per sector basis in a cellular network.” *Id.*

Lastly, Dr. Bernardin states that a

third primary difference between Egner and Adduci is that Adduci’s investment evaluation is for a service in a geographic region, which is a business or macro-level evaluation, while Egner’s investment evaluation is for capital equipment in individual sectors, which is an engineering or micro-level evaluation. Adduci would assist a wireless carrier’s business and financial organizations in determining whether to deploy a new service, e.g., UMTS, in a country, city or metropolitan area. Egner, on the other hand, would assist a network engineering organization in determining which sector to add capital investment, e.g., radios and the like.

*Id.* at ¶ 11. In Dr. Bernardin’s professional judgment, “Adduci does not provide any motivation to one of ordinary skill in the art for performing an engineering or micro-level evaluation, such

as capital investment on a per sector basis.” *Id.*

In view of the above-quoted second and third primary differences discussed by Dr. Bernardin, Applicant again asserts that the claimed “determining . . . an investment return per sector” is not taught or suggested by Adduci (or by the combination of Adduci, Cossins and Elliott).

Accordingly, Applicant respectfully asserts that independent claims 1 and 22 are patentable over the cited prior art.

Claims 2-10, 43, 44, 53 and 54 depend from claim 1, and claims 23-31 and 55-58 depend from claim 22, and add further limitations to their respective independent claims. Applicant respectfully submits that the dependent claims are allowable by reason of depending from an allowable claim as well as for adding new limitations.

Conclusion

In view of the above, Applicant submits that the claims are in condition for allowance. No new matter has been added by this amendment. If the Examiner should have any questions, please contact Applicant's Attorney, Brian A. Carlson, at 972-732-1001. The Commissioner is hereby authorized to charge any fees due in connection with this filing, or credit any overpayment, to Deposit Account No. 50-1065.

Respectfully submitted,

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